

AMENDMENTS TO THE CLAIMS

The following is a complete listing of claims with a status identifier in parenthesis.

1. (Currently Amended) A method for designing a control of a complete process which comprises a number of individual processes, said method comprising the steps of:

- a) identifying functionalities of said individual processes, one or more of which is manifested at least in part by physical motion;
- b) generating a respective set of state transitions to represent each functionality;
- c) performing a validation by automatically verifying future interplay of said functionalities in accordance with an input to said complete process and producing a validation result; and
- d) determining data for future controlling of said complete process from said validation result.

2. (Original) The method as claimed in claim 1, further comprising the step of performing a sequence optimization.

3. (Original) The method as claimed in claim 1, further comprising the step of producing data for the future control in an executable code form.

4. (Previously Presented) The method as claimed in claim 1, wherein at least one of the functionalities is a software unit for controlling one or more of said individual processes, respectively.

5. (Currently Amended) The method as claimed in claim 1, wherein said validation result can indicate that one or more of said individual processes is an impeding physical process, an impeding physical impeding process being defined as such if one of the following conditions is met:

- a) an individual process is blocked at least in part physically by an aspect of another individual process; and
- b) an individual process reaches an unauthorized physical state or a physical state endangering operation of said complete system.

6. (Previously Presented) The method as claimed in claim 1, wherein the complete process represents one or more operations performed by an automatic placement machine.

7. (Previously Presented) The method as claimed in claim 1, further comprising the step of controlling a technical installation with the data determined for controlling said complete process.

8. (Currently Amended) An arrangement for designing the control of a complete process, comprising:

a number of individual processes, one or more of which is manifested at least in part by physical motion; and

a processor unit configured to provide:

a) identification of functionalities of said individual processes;

b) representation of each functionality by a respective set of state transitions;

b) c) a validation, by automatically verifying future interplay of functionalities in accordance with an input to said complete process; and

e) d) data from a result of said validation that is used for future controlling of said complete process.

9. (Previously Presented) The method of claim 1, wherein a successful type of validation result indicates at least one of the following: that there are no impediments to any of said processes; and that each of said individual processes occupies only one or more authorized states, respectively.

10. (Previously Presented) The arrangement of claim 8, wherein the processor unit is further operable to perform a sequence optimization.

11. (Previously Presented) The arrangement of claim 8, wherein the processor unit is further operable to produce data for the future control in an executable code form.

12. (Previously Presented) The arrangement of claim 8, wherein at least one of the functionalities corresponds to a software unit for controlling one or more of said individual processes, respectively.

13. (Currently Amended) The arrangement of claim 8, wherein said validation result can indicate that one or more of said individual processes is an impeding physical process, an impeding physical process being defined as such if one of the following conditions is met:

- a) an individual process is blocked at least in part by an aspect of another individual process; and
- b) an individual process reaches an unauthorized physical state or a physical state endangering operation of said complete system.

14. (Previously Presented) The arrangement of claim 8, wherein the complete process represents one or more operations performed by an automatic placement machine.

15. (Previously Presented) The arrangement of claim 8, wherein the processor unit is further operable to control a technical installation with the data determined for controlling said complete process.

16. (Previously Presented) The method of claim 1, wherein a successful type of validation result indicates at least one of the following: that there are no impediments to any of said processes; and that each of said individual processes occupies only one or more authorized states, respectively.

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